

SEQUENCE LISTING

<110> Advisys, Inc.

<120> Codon optimized Synthetic Plasmid

<130> 108328.00146

<160> 21

<170> PatentIn version 3.1

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<212> DNA

<213> artificial sequence

<220>

<223> Plasmid vector having an analog GHRH sequence.

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<210> 2
 <211> 2739
 <212> DNA
 <213> artificial sequence

<220>
 <223> Plasmid vector having an analog GHRH sequence.

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<211> 795
<212> DNA
<213> artificial sequence

<220>
<223> Coding sequence having an antibiotic resistance gene Kanamycin.

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gatct	ctgt	cat	tcac	ct	tgct	cct	g	ccat	cat	ggc	tgat	gcaat	360
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ggc	gagg	atc	tcg	tcg	tg	tc	at	gg	at	at	at	at	600
ggc	ggtt	ttt	ctgg	att	cat	cg	act	gtt	gg	acc	ct	atc	660
at	age	gtt	gg	ctac	ccgt	tg	at	gtt	gg	acc	at	ccgtt	720
ctc	gt	gtt	ttt	acgg	tat	ccgt	atc	gg	cc	at	at	at	780
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<210> 4
<211> 219
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog porcine GHRH sequence.

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tac	ccg	ga	gg	ttt	gac	cc	ttt	gac	cc	ttt	gac	cc	ttt	219
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<210> 5
 <211> 246
 <212> DNA
 <213> artificial sequence

<220>
 <223> Sequence for an analog mouse GHRH sequence.

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tacaggaagc tgctgagcca gctgtacgcc aggaagggtga tccaggacat catgaacaag	180	
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ttctaa	246	

<210> 6
 <211> 234
 <212> DNA
 <213> artificial sequence

<220>
 <223> Sequence for an analog porcine GHRH sequence.

<400> 6		
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tacaggagga tcctgggcca gctgtacgctt aggaagctcc tgcacgagat catgaacagg	180	
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<210> 7
 <211> 225
 <212> DNA
 <213> artificial sequence

<220>
 <223> Sequence for an analog bovine GHRH sequence.

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taccgcaagg tgctcggcca gctcagcgc cgcagctcc tgcaggacat catgaaccgg	180	
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<210> 8
 <211> 225
 <212> DNA
 <213> artificial sequence

<220>
 <223> Sequence for an analog ovine GHRH sequence.

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tacaggaaga tcctgggcca gctgagcgtt aggaagctcc tgcaggacat catgaacagg	180	
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<210> 9
<211> 246
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog chicken GHRH sequence.

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ttctaa                                         246

<210> 10
<211> 190
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of human growth hormone poly A tail.

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ttctataata ttatgggtg gaggggggtg gtatggagca aggggcaagt tggaaagaca      180
acctgttaggg                                         190

<210> 11
<211> 55
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of human growth hormone 5' untranslated region

<400> 11
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<210> 12
<211> 782
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a plasmid pUC-18 origin of replication

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<210> 13	
<211> 5	
<212> DNA	
<213> artificial sequence	
<220>	
<223> This is a NEO ribosomal binding site	
<400> 13	
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<210> 14	
<211> 29	
<212> DNA	
<213> artificial sequence	
<220>	
<223> Nucleic acid sequence of a prokaryotic PNEO promoter.	
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<210> 15	
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<223> Nucleic acid sequence of a eukaryotic promoter c5-12.	
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aaaataactc ccggggagttt ttttttagagc ggaggaatgg tggacaccca aatatggcga	180
cggttccctca cccgtcgcca tattttgggtt tccggccctcg gcccggcccg cattcctggg	240
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<210> 16	
<211> 210	
<212> DNA	
<213> artificial sequence	
<220>	
<223> Optimized nucleic acid sequence of a human growth hormone poly A tail	
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 <210> 17
 <211> 2722
 <212> DNA
 <213> artificial sequence

 <220>
 <223> Plasmid vector having a codon optimized mouse GHRH sequence

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<210> 18
 <211> 2725
 <212> DNA
 <213> artificial sequence

<220>
 <223> Plasmid vector having a codon optimized rat GHRH sequence

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	gttggcgctc	taaaaataac	tccggag	tat	tttaga	gcggaggaa	at	gtggacacc	180
	caaataatggc	gacggttcct	cacccgtcg	catat	ttggg	tgtccgc	ct	cgccggggc	240
	cgcattcctg	ggggccgggc	ggtgc	cccc	cccg	ctcg	taaaagg	gtggccgc	300
	ggcggcc	ccac	gag	ttcc	acc	gggg	ccaa	ggccaa	360
	cccgaaccac	tcagggtc	gtggacag	cac	ctg	ccat	ggcc	ct	420
	ttcgtgctgc	tgacc	ctgac	cag	cg	tgc	ctcc	ccat	480
	agggtgcgc	ggcac	gcga	cgc	ccat	ttc	acc	aggaggat	540
	ctgtacgcta	gga	agct	cct	gcac	gagatc	at	gaac	600
	gaggcag	ggt	ttca	ctg	at	gtt	ccat	ttgtt	660
	cagtgcct	cct	ggcc	cct	gaa	gtt	ggcc	at	720
	aattaat	tttgc	tttgc	tttgc	tttgc	tttgc	tttgc	tttgc	780
	gggttgtat	gag	caag	gggg	caag	ttgg	gggg	ccac	840
	ggtaccag	tttgc	tttgc	tttgc	tttgc	tttgc	tttgc	tttgc	900

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cttgctgtcc	ataaaaccgc	ccagcttagc	aactgttggg	aaggcgatc	gtgtatacg	2700
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<210> 19
<211> 2716
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized bovine GHRH sequence

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gttggcgctc	taaaaataac	tcccggagt	tatTTTtaga	gcggaggaat	ggtggacacc	180
caaatatggc	gacggTTct	caccCGTCGc	catATTTGGG	tgTCCGCCt	cgGCGGGGC	240
cgCATTcCTG	ggggCCGGGC	ggTGTCCCG	ccCGCCTCGA	taaaAGGCTC	cgGGGCGGGC	300
ggcggcccac	gagCTACCCG	gaggAGCggG	aggcGCCAAG	cggatCCAA	ggCCCAACTC	360
ccCGAACAC	tcAGGGTCT	gtggACAGCT	cacCTAGCTG	ccatGGTGT	gtggGTGTT	420
ttcCTGGTGA	ccCTGACCT	gagCAGCGGC	tcccACGGCT	ccCTGCCCTC	ccAGCCTCTG	480
cgcatCCCTC	gCTACGCCGA	cgCCCATCTTC	accaACAGCT	accGCAGGT	gCTCGGGCAG	540
ctcAGCGCCC	gcaAGCTCT	gcAGGACATC	atGAACCGGC	agCAGGGCGA	gCGCAACCAG	600
gagCAGGGAG	cCTGATAAGC	ttATCGGGGT	ggCATCCCTG	tgACCCCTCC	ccAGTGCCTC	660
tcCTGGCCCT	ggaAGTTGCC	actCCAGTGC	ccACCAGCT	tgtCCtaata	aaATTAAGTT	720
gcATCATTt	gtctGACTAG	gtgtCCTTCT	ataATATTAT	ggggTggagg	ggggTggtat	780
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ttttGTTCCC	tttagTGAGG	gttaATTCG	agCTTGGTCT	tccGTTCT	cgCTCACTGA	900
ctcGCTGCgc	tcGGTcGTTc	ggCTGCGGCG	agCggTatCA	gCTCACTCAA	aggCGGTaaT	960
acggTTatCC	acAGAACATCAG	ggGATAACGC	aggAAAGAAC	atGTGAGCAA	aaggCCAGCA	1020
aaaggCCAGG	aaccGTaaaa	aggCCGCGTT	gtcGGCGTT	ttccATAGGC	tccGCCCCCC	1080
tgacGAGCAT	cacaAAAATC	gacGCTCAAG	tcAGAGGTGG	cgAAACCCGA	caggACTATA	1140
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gtatGTAGGC	ggTGTACAG	agTTCTGAA	gtggTGGCCT	aACTACGGCT	acACTAGAAG	1500
aacAGTATTt	ggTATCTGCG	ctCTGCTGAA	gccAGTTACC	ttcGGAAAAA	gagTTGGTAG	1560
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gattACGCGC	agaaaaAAAG	gatCTCAAGA	agATCCTTG	atCTTTCTA	cgGGGTCTGA	1680
cgCTAGCTA	gCGCTAGAA	gaACTCGTC	agaAGGCGAT	agaAGGCGAT	gCGCTGCgAA	1740
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tcAGCAATAT	caCggGTAGC	caACGCTATG	tcCTGATAGC	ggTCGCCAC	acCCAGCCGG	1860
ccACAGTCGA	tGAATCCAGA	aaAGCGGCCA	tttCCACCA	tGATATTcGG	caAGCAGGCA	1920
tcGCCATGAG	tcACGACGAG	atCCTCGCCG	tcGGGATGC	gCGCCTTGAG	cctGGCGAAC	1980
agTTcGGCTG	gCGCGAGCCC	ctGATGCTCT	tcGTCAGAT	catCCTGATC	gacaAGACCG	2040
gttCCATCC	gAGTACGTGc	tcGCTCGATG	cgATGTTcG	tttGGTGGTC	gaATGGGCGAG	2100
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agggcgaatt	ggagct					2716

<210> 20
<211> 2716
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized ovine GHRH sequence

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	gttggcgctc	taaaaataac	tcccgaggat	tattttaga	gcggaggaat	ggtggacacc	180
	caaataatggc	gacggttcct	caccgtcg	catatgggg	tgtccggct	cggccggggc	240
	cgcattcctg	ggggccgggc	ggtgcgtcccg	cccgcctcg	taaaaggctc	cggggccggc	300
	ggcgccccac	gagctacccg	gaggagcggg	aggcgccaag	cggatccaa	ggcccaactc	360
	cccgaaaccac	tcagggtccct	gtggcacgct	cacctagctg	ccatgggtgt	gtgggtgttc	420
	ttcctggta	ccctgaccct	gagcagcg	agccacggca	gcctgcccag	ccagcccc	480
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	gagcagggcg	cctgataa	gtatcgggt	ggcatccctg	tgacccctcc	ccagtgcctc	660
	tcctggccct	ggaagttgcc	actccagtgc	ccaccagct	tgtcctaata	aaattaagtt	720
	gcatcattt	gtctgactag	gtgtccttct	ataatattat	ggggtgagg	ggggtggtat	780
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	acggttatcc	acagaatcag	gggataacgc	aggaaagaac	atgtgagcaa	aaggccagca	1020
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agggcgaatt ggagct	2716

<210> 21
<211> 2725
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized chicken GHRH sequence

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gttggcgctc taaaaataac tcccgaggat tatttttaga gcgaggaaat ggtggacacc	180
caaatatggc gacggttctt caccgtcgcc catatttggg tgtccgcctt cggccggggc	240
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cccgaaaccac tcagggtctt gtggacagct cacctagctg ccatggccctt gtgggtgttc	420
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